IN THE CLAIMS

1. (currently amended) A correction coefficient calculating method for X-ray CT systems, comprising the steps of:

positioning a phantom, which has an oblong section, in a scan field between an X-ray tube and an X-ray detector, and scanning the phantom from plural directions so as to acquire a plurality of views; and

calculating a final correction coefficient, which is used to correct projection information to be acquired from a subject, ~~using the~~using a plurality of results of the scan; and

determining a first correction coefficient and a second correction coefficient, wherein said calculating the final correction coefficient comprises computing the final correction coefficient from the first and second correction coefficients, wherein the first coefficient is calculated from a phantom having a first shape different than a second shape of a phantom used to calculate the second correction coefficient.

2. (original) A correction coefficient calculating method for X-ray CT systems of Claim 1, wherein the final correction coefficient is calculated as an average between the first correction coefficient and the second correction coefficient.

3. (currently amended) A beam-hardening post-processing method for X-ray CT systems, comprising the steps of:

positioning a phantom, which has an oblong section, in a scan field between an X-ray tube and an X-ray detector, scanning the phantom from one or plural directions so as to acquire a plurality of views, and producing one sinogram using first projection information;

correcting the first projection information in terms of ~~the beam-hardening~~a beam-hardening effect so as to produce second projection information;

fitting a first function to the second projection information so as to produce third projection information;

fitting a second function ~~to the~~to a plurality of third projection information values, the third projection information values being provided as functions having as independent variables ~~the second~~a plurality of second projection information values that are sampled in relation to all the views and each ~~of the~~of a plurality of channels of said X-ray detector constituting the second projection information; and

correcting projection information acquired from a subject, who is positioned in the scan field, using a correction function obtained as the second function.

4. (currently amended) An X-ray CT system including a phantom having an oblong section positioned in a scan field between an X-ray tube and an X-ray detector, said X-ray CT system configured to:

scan the phantom from one or plural directions to acquire a plurality of views, and produce one sinogram using first projection information;

correct the first projection information in terms of ~~the beam hardening~~a beam-hardening effect to produce second projection information;

fit a first function to the second projection information to produce third projection information;

fit a second function ~~to the~~to a pluarity of third projection information values, the third projection information values being provided as functions having as independent variables ~~the second~~a plurality of second projection information values that are sampled in relation to all the views and each ~~of the~~of a plurality of channels of said X-ray detector constituting the second projection information; and

correct projection information acquired from a subject, who is positioned in the scan field, using a correction function obtained as the second function.

5. (new) A correction coefficient calculating method for X-ray CT systems of Claim 1 further comprising:

weighting the first coefficient to generate a first weighted coefficient;

weighting the second coefficient to generate a second weighted coefficient; and

summing the first and second weighted coefficients.

6. (new) A correction coefficient calculating method for X-ray CT systems of Claim 1, wherein the first shape is circular and the second shape is oblong.

7. (new) A correction coefficient calculating method for X-ray CT systems of Claim 1, wherein the first shape is circular and the second shape is annular.

8. (new) A correction coefficient calculating method for X-ray CT systems of Claim 1, wherein the first shape is oblong and the second shape is annular.